

WHAT IS CLAIMED IS:

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1. An image pickup apparatus comprising:  
a plurality of pixels including photoelectric  
conversion means for converting an optical signal from  
5 an object into an electrical signal and read means for  
reading out the signal from said photoelectric  
conversion means;

difference means for performing difference  
processing on a noise component contained in the signal  
10 read by said read means;

detection means for detecting an image pickup  
condition; and

correction means for performing correction of  
execution of difference processing in accordance with  
15 an output from said detection means.

2. An apparatus according to claim 1, wherein  
said detection means detects that a signal level of a  
signal generated by said photoelectric conversion means  
20 is higher than a predetermined value.

3. An apparatus according to claim 1, wherein  
said detection means detects that a signal level of  
noise generated in each pixel is higher than a  
25 predetermined value.

4. An apparatus according to claim 1, wherein

said correction means controls said difference means  
not to perform difference operation.

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5. An apparatus according to claim 2, wherein  
said correction means controls said difference means  
not to perform difference operation.

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6. An apparatus according to claim 3, wherein  
said correction means controls said difference means  
not to perform difference operation.

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7. An apparatus according to claim 1, wherein  
said correction means replaces a signal output from  
said difference means with a signal of a predetermined  
signal level.

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8. An apparatus according to claim 2, wherein  
said correction means replaces a signal output from  
said difference means with a signal of a predetermined  
signal level.

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9. An apparatus according to claim 3, wherein  
said correction means replaces a signal output from  
said difference means with a signal of a predetermined  
signal level.

10. An image pickup apparatus comprising:

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a plurality of pixels including photoelectric conversion means for converting an optical signal from an object into an electrical signal and read means for reading out the signal from said photoelectric conversion means;

difference means for performing difference processing on a noise component contained in the signal read by said read means;

10 detection means for detecting an image pickup condition; and

correction means for controlling said difference means in accordance with an output from said detection means.

15 11. An apparatus according to claim 10, wherein said correction means inhibits execution of difference processing by said difference means in accordance with an output of said detection means.

20 12. An apparatus according to claim 10, wherein said detection means detects that a signal level of a signal generated by said photoelectric conversion means is higher than a predetermined value.

25 13. An apparatus according to claim 11, wherein said detection means detects that a signal level of a signal generated by said photoelectric conversion means

is higher than a predetermined value.

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Contd 5 14. An apparatus according to claim 10, wherein said detection means detects that a signal level of noise generated in each pixel is higher than a predetermined value.

10 15. An apparatus according to claim 11, wherein said detection means detects that a signal level of noise generated in each pixel is higher than a predetermined value.

16. An image pickup apparatus comprising:  
a pixel including photoelectric conversion means  
15 for converting an optical signal from an object into an electrical signal and read means for reading out the signal from said photoelectric conversion means;

20 difference means for performing difference operation on a noise component contained in the signal read by said read means;

detection means for detecting a signal level of noise generated in said pixel; and

25 correction means for correcting the signal read out by said read means in accordance with an output of said detection means.

17. An apparatus according to claim 16, wherein

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5 said detection means detects that a signal level of a signal generated by said photoelectric conversion means is higher than a predetermined value, thereby detecting that the signal level of noise generated in each pixel is higher than a predetermined value.

10 18. An apparatus according to claim 16, wherein said correction means controls said difference means not to perform difference operation.

15 19. An apparatus according to claim 17, wherein said correction means controls said difference means not to perform difference operation.

20 20. An apparatus according to claim 16, wherein said correction means replaces a signal output from said difference means with a signal of a predetermined signal level.

25 21. An apparatus according to claim 17, wherein said correction means replaces a signal output from said difference means with a signal of a predetermined signal level.

22. An apparatus according to claim 1, wherein said read means amplifies the signal from said photoelectric conversion means, and outputs the

amplified signal.

23. An apparatus according to claim 22, wherein  
said pixels include reset means for resetting an input  
of amplification means.

24. An apparatus according to claim 23, wherein  
said pixels include transfer means for transferring the  
signal from said photoelectric conversion means to said  
amplification means.

25. An apparatus according to claim 10, wherein  
said read means amplifies the signal from said  
photoelectric conversion means, and outputs the  
amplified signal.

26. An apparatus according to claim 25, wherein  
said pixels include reset means for resetting an input  
of amplification means.

27. An apparatus according to claim 26, wherein  
said pixels include transfer means for transferring the  
signal from said photoelectric conversion means to said  
amplification means.

28. An apparatus according to claim 16, wherein  
said read means amplifies the signal from said

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photoelectric conversion means, and outputs the amplified signal.

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29. An apparatus according to claim 28, wherein said pixels include reset means for resetting an input of amplification means.

30. An apparatus according to claim 29, wherein said pixels include transfer means for transferring the signal from said photoelectric conversion means to said amplification means.

31. An image pickup system comprising:  
said solid-state image pickup apparatus defined in claims 1 to 30;  
color correction means for performing color correction on a signal output from said solid-state image pickup apparatus; and  
control means for controlling said solid-state image pickup apparatus and said color correction means.

any one of ✓

32. An image pickup system comprising:  
said solid-state image pickup apparatus defined in claims 1 to 30;  
an LED array for irradiating said solid-state image pickup apparatus with light; and  
original feeding means for feeding an original.

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